



User Manual

English

APC Step-Down Transformer

Models: AP9626, AP9627, and AP9628

Introduction

The APC® step-down transformers are used to convert a higher input voltage (208-200 V) to a lower output voltage (120-100 V) which might be more fitting for certain environments or system configurations.

Note: Illustrations in this document may vary from your actual configuration.

Unpacking

Read the Safety Guide before installation.

Note: The model and serial numbers are located on a small, rear panel label. For some models, an additional label is located behind the front bezel.

Inspect the transformer upon receipt. Notify the carrier and dealer if there is damage.

The packaging is recyclable; save it for reuse or dispose of it properly.


Check the package contents:

- Transformer
- Three front bezel kits
- Rail kit
- Literature kit containing:
 - Product documentation
 - User Manuals CD
 - Safety information
 - Warranty information

Environmental Specifications

This unit is designed for indoor use only. Do not operate the unit where there is excessive dust.

Temperature	32° to 104° F (0° to 40° C)
Humidity	0 to 95% relative humidity, non-condensing

 <p>95 lb (43 kg)</p>	The unit is heavy. Select a location sturdy enough to handle the weight.
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Electrical Specifications

Attention:

- Operation above the input voltage range may cause equipment damage.
- Operation below the input voltage range may cause overload or automatic shutdown. When connecting directly to a branch circuit, check that the line voltage is within specifications. When connecting to the UPS, check that the line voltage into the UPS is within specifications before transferring to bypass mode.

Note: In order for AP9626 models to output the full 5000 VA, the input must be hardwired to a 5500 VA source.

Installation	With Line Cord (AP9826 or AP9627)	With Hardwire (AP9626 or AP9628)
Nominal Input Voltage	208 Vac	
Nominal Output Voltage	120 Vac	
Input Voltage Range	185-230 Vac*	
Input Current Rating	24 A	26 A
Line Frequency	60 Hz	
Efficiency	90-95%	
Maximum Input Power	5000 VA	5500 VA
Maximum Output Power	4500 VA	5000 VA

*For continuous operation below $V_{in} = 205$ Vac, the output load must be reduced to limit the maximum input current to the amount specified above. Continuous operation above the maximum specified input current may cause the unit to overheat and shut down. Please contact APC for additional information.

** Not available for AP9627.

Model	AP9626	AP9627	AP9628
Input Power Distribution	3 ft cord with L6-30P or hardwired	2 ft cord with L6-30P	Hardwire
Output Power Distribution	(2) 15 A circuits with (4) 5-20R and (2) 15 A circuits with (2) 5-20R	(4) 20 A circuits with (4) L5-20R	Hardwire

Rack Installation

Install the Rails

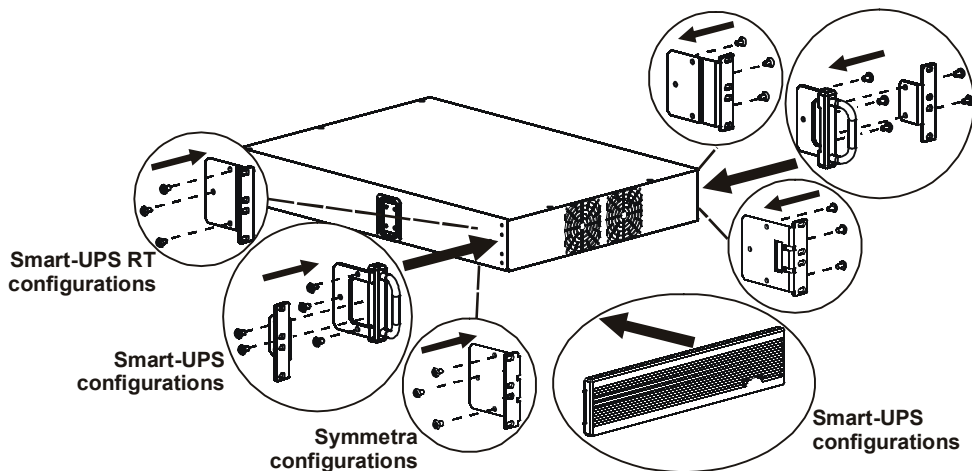
For details on support rail installation, refer to the instructions in the rail kit.

Install the Transformer

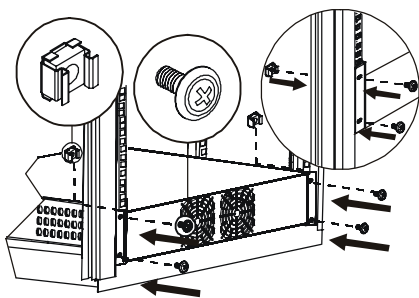
Attention: Install the transformer directly above the UPS.

Install the bezel and bracket components that correspond to your specific configuration (i.e. Smart-UPS[®], Smart-UPS RT[®], Symmetra[®]).

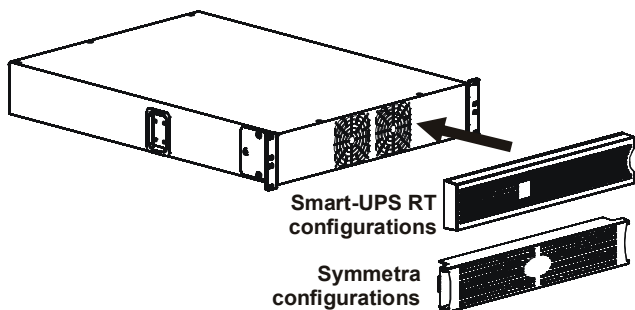
- 1 Attention: The bezel which corresponds with Smart-UPS configurations must be installed at the *same* time as the brackets.**



2



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Electrical Configuration

Attention:

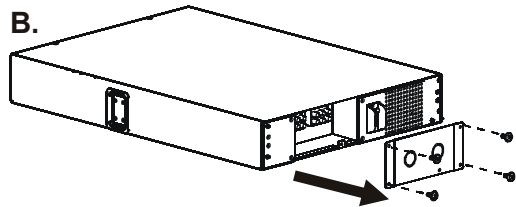
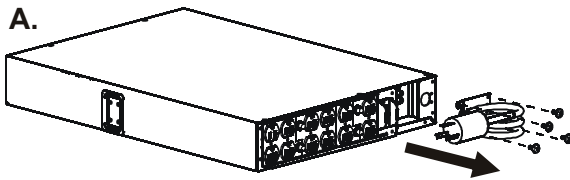
- The AP9626 and AP9627 models **DO NOT** require hardwiring. Use the attached cord to connect to utility power. For *optional* AP9626 hardwiring, follow wiring instructions below.

Hardwiring

Attention:

- All electrical configurations must be performed by a qualified electrician.
- Adhere to all local and national electrical codes.
- Verify that all branch circuit (mains) are de-energized and locked out before installing cables or making connections.
- Use 10-gauge (6 mm²) wire.

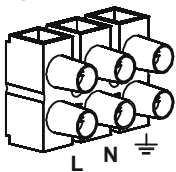
1. Switch the transformer input circuit breaker and the utility circuit breaker OFF.
2. Remove the access panel, by removing screws (see **A** for AP9626 models and **B** for AP9628 models).



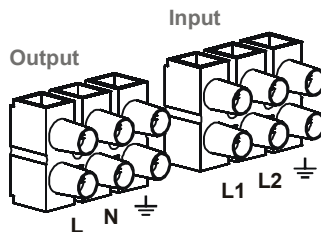
3. For AP9626 models only, disconnect the power cord from the terminal blocks.
4. For AP9628 models only, remove circular knockouts.
5. Install a flexible type conduit for input and output (AP9628 models only) panels, and secure.
6. Run wires through the conduit.
7. Connect the new wires to the terminal blocks (see the terminal blocks for AP9626 models and AP9628 models below). Wire to the ground block first. Each terminal block is labeled.

AP9626 models:

Input



AP9628 models:

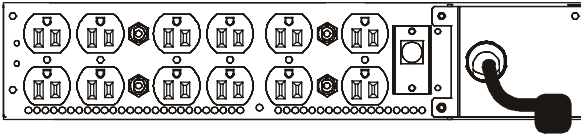


8. Switch the circuit breakers ON.
9. Check line voltages.
10. Reinstall the access panel (AP9628 models), or install the new hardwire access panel (supplied with AP9626 models).

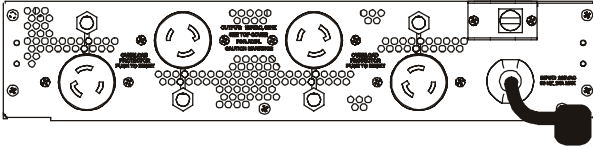
Connecting Equipment and Power to the Transformer

Rear Panels

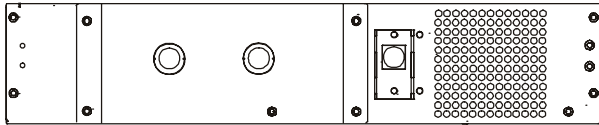
AP9626 models:



AP9627 models:



AP9628 models:



Start-Up

Attention:

- **Wiring must be performed by a qualified electrician.**
- **Adhere to all local and national electrical codes.**
- **If the internal temperature of the transformer is less than 100°F, one of the fans is at risk of failing. If 100°F is reached, the redundant fan will turn on.**

1. Check that all power is turned OFF.
2. For AP9626 (optional) or AP9628 models only, hardwire the transformer (see *Hardwiring*).
3. For AP9626 or AP9627 models only, connect all load equipment to the PDU receptacles.

Note: Each receptacle group is protected by a circuit breaker. A colored label identifies each circuit and the corresponding breaker.

4. Switch the transformer input circuit breaker ON.
5. Turn on output circuit breakers as needed.
6. Turn on all connected equipment.

Regulatory and Service Information

FCC Compliance Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy. If it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to take whatever measures may be necessary to correct the interference at their own expense.

Regulatory Approvals



Service

If the transformer requires service, do not return it to the dealer. Follow these steps:

1. Contact APC Customer Support through the APC Web site, www.apc.com.
 - Note the model number of the transformer, the serial number located on the back of the unit, and the date purchased. If you call APC Customer Support, a technician will ask you to describe the problem and attempt to solve it over the phone. If this is not possible, the technician will issue a Returned Material Authorization Number (RMA#).
 - If the transformer is under warranty, repairs are free.
 - Procedures for servicing or returning products may vary internationally. Refer to the APC Web site for country specific instructions.
2. Pack the transformer in its original packaging. If this is not available, refer to the APC Web site for information about obtaining a new set.
 - Pack the transformer properly to avoid damage in transit. Never use Styrofoam beads for packaging. Damage sustained in transit is not covered under warranty.
3. Mark the RMA# on the outside of the package.
4. Return the transformer by insured, prepaid carrier to the address given to you by Customer Support.

Warranty and Contact Information

American Power Conversion Limited Two Year Factory Warranty¹

The limited warranty provided by American Power Conversion (APC) in this Statement of Limited Factory Warranty applies only to products you purchase for your commercial or industrial use in the ordinary course of your business.

Terms of Warranty

American Power Conversion warrants its products to be free from defects in materials and workmanship for a period of two years from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its sole discretion, any such defective products. This warranty does not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way. Repair or replacement of a defective product or part thereof does not extend the original warranty period. Any parts furnished under this warranty may be new or factory remanufactured.

Non-transferable Warranty

This warranty applies only to the original purchaser who must have properly registered the product. Product may be registered at <http://warranty.apc.com>.

Exclusions

APC shall not be liable under the Warranty if its testing and examination discloses that the alleged defect in the product does not exist or was caused by your or any third person misuse, negligence, improper installation or testing, unauthorized attempts to repair or modify, wrong or inadequate electrical current or connection, inappropriate on site operation conditions, corrosive atmosphere, repair, installation, start-up by non-APC designated personal, a change in location or operating use, exposure to the elements, acts of God, fire, theft or installation contrary to APC recommendations or specifications, or in any event if the APC serial number has been altered, defaced or removed, or any other cause beyond the range of the intended use.

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NO SALESMAN, EMPLOYEE OR AGENT OF APC IS AUTHORIZED TO ADD TO OR VARY THE TERMS OF THIS WARRANTY. WARRANTY TERMS MAY BE MODIFIED, IF AT ALL, ONLY IN WRITING SIGNED BY AN APC OFFICER AND LEGAL DEPARTMENT.

Warranty Claims

Customers with warranty claims issues may access the APC worldwide customer support network by visiting www.apc.com. Select your country from the country selection pull-down menu. Open the Support tab at the top of the web page to obtain contact information for customer support in your region

¹APC single phase products covered under this warranty include all Smart-UPS[®] products, Matrix UPS[®] products, and all single phase Symmetra[®] products. Products purchased as part of an InfraStruXure[®] single phase solution are covered under a separate ISXTM warranty. Accessories covered under this warranty include rack power distribution units (PDU), Management Cards, RM KVM Switch, RM Keyboard Monitor, and Air Distribution/Fan products.

APC Worldwide Customer Support

Customer support for this or any other APC product is available at no charge in any of the following ways:

- Refer to the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.
 - **www.apc.com** (Corporate Headquarters)
Connect to localized APC Web sites for specific countries, each of which provides customer support information.
 - **www.apc.com/support/**
Global support searching APC Knowledge Base and using e-support.
- Contact an APC Customer Support center by telephone or e-mail.
Local, country-specific centers:
go to **www.apc.com/support/contact** for information.

Contact the APC representative or other distributor from whom you purchased your APC product for information on how to obtain local customer support.

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